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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/634,847

08/06/2003

Masanori Onuma

Q76879

6506

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EXAMINER

LE, THANH TAM T

ART UNIT

PAPER NUMBER

2839

MAIL DATE

DELIVERY MODE

08/10/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/634,847	ONUMA ET AL.	
	Examiner	Art Unit	
	Thanh-Tam T. Le	2839	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 June 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 and 6-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/25/07</u> | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 4 and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ushijima et al. (6,334,798) in view of Applicant's submitted Prior Art (APA).

Ushijima et al., figures 1 and 3 show a method of connecting a terminal fitting and an elastic wire, comprising the steps of:

providing a terminal fitting (2);

providing an electric wire (W);

providing a conductive connecting (9 or 11) member formed with an insertion hole, the connecting member which includes an outer peripheral portion having a continuous cylindrical shape;

inserting the electric wire into the insertion hole of the connecting member;

compressing the outer peripheral portion of the connecting member radially inwardly so as to caulk an inserted portion of the electric wire uniformly over a whole periphery thereof (column 5, lines 48-55); and thereafter

welding the connecting member and the terminal fitting (column 5, lines 55-62).

Ushijima et al. disclose the claimed invention as described above except for welding the connecting member and the terminal fitting by applying ultrasonic wave.

Art Unit: 2839

APA, figure 7 shows welding the connecting member and the terminal fitting by applying ultrasonic wave (57). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Ushijima et al. to have the ultrasonic wave, as taught by APA for better welding.

Regarding claim 4, Ushijima et al., figures 1 and 3 show the terminal fitting is provided with a clamping portion (4) to press-the conductive connecting member.

Regarding claim 7, Ushijima et al. disclose the inserting the electric wire into the insertion hole is performed after the providing the conductive connecting member formed with the insertion hole.

Regarding claim 8, Ushijima et al. disclose the compressing the outer peripheral portion of the connecting member radially inwardly is performed after the inserting the electric wire into the insertion hole.

3. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ushijima et al. and APA as applied to claim 1 above, and further in view of Hsieh (4,998,344).

Ushijima et al. disclose the claimed invention as described above except for the connecting member is compressed and shaped by rotary swaging.

Hsieh, figures 1-3 show rotary swaging a workpiece (1) that is generally a cylindrical tube to form a semi-product. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide Ushijima et al. to have the connecting member is compressed and shaped by rotary swaging, as taught by Hsieh, in order to have more security between the connecting member and the wire.

Art Unit: 2839

4. Claims 3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ushijima et al. and APA as applied to claim 1 above, and further in view of Swengel, Sr. et al. (3,656,092).

Ushijima et al. disclose the claimed invention as described above except for the connecting member includes a first hole portion and a second hole portion which is larger than the first hole in diameter.

Swengel, Sr. et al., figures 4 and 5 show a terminal device having a connecting member (24) having a first hole portion (at 24) and a second hole portion (at 26) which is larger than the first hole in diameter. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Ushijima et al. to have the structure of the connecting member, as taught by Swengel, Sr. et al. for easier connecting.

### ***Response to Arguments***

5. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

**Conclusion**

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh-Tam T. Le whose telephone number is 571-272-2094.

7. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Thanh-Tam T. Le  
Primary Examiner  
Art Unit 2839